

# Modeling residential development in California from 2000-2050: Integrating wildfire risk, wildland and agricultural encroachment

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Between 1940 and 2000, nearly 10 million housing units were constructed throughout California. This increased interaction between human and natural communities creates a number of significant socio-ecological challenges. Here we present a novel spatially explicit model that allows better characterization of the extent and intensity of future housing settlements using three development scenarios between 2000 and 2050. We estimate that California's exurban land classes will replace nearly 12 million acres of wild and agricultural lands. This will increase threats to ecosystems and those presented by wildfire, as the number of houses in 'very high' wildfire severity zones increases by nearly 1 million.

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